

**BY ORDER OF THE COMMANDER  
AIR FORCE MATERIEL COMMAND**



**AFMC INSTRUCTION 21-139**

**8 DECEMBER 2004**

**Maintenance**

**DEPOT MAINTENANCE  
IMPOUNDMENT PROCEDURES**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction establishes the minimum requirements and criteria for impounding aircraft and equipment during depot maintenance at the Air Logistics Centers (ALCs), Aerospace Maintenance and Regeneration Center (AMARC), and contractor/contracted depot maintenance/aircraft modification services attached to an AFMC depot. It implements AFPD 21-1, *Managing Aerospace Equipment Maintenance*, AFI 21-102, *Depot Maintenance Management*, and AFMCPD 21-1, *Depot Maintenance Policy*.

## Chapter 1

### INTRODUCTION

**1.1. General Information.** Aircraft or equipment is impounded when intensified management is warranted due to system or component malfunction or failure of a serious or chronic nature. MA Division Chiefs or Deputies appoint impoundment authorities. Aircraft and equipment may be impounded for many reasons, so only personnel with an extensive maintenance background should evaluate the problem and recommend impoundment to the respective impoundment authorities. Impounding aircraft and equipment allows investigative efforts to systematically proceed with minimal risk relative to intentional/unintentional actions and subsequent loss of evidence.

1.1.1. HQ AFMC/LGD is the OPR for this instruction. It provides basic requirements for the program and should be expanded as necessary to implement and maintain center programs. ALC and AMARC MAs are responsible for ensuring timely implementation of the requirements of this instruction and will appoint a center OPR. Local directives that address specific requirements in managing impoundment activities for assigned end item and PDM weapon systems will be developed or updated for implementation within 180 days from the publication of this document and any subsequent change.

**1.2. Procedures for Waiver Requests and Proposed Changes to this Instruction.** Waivers to the policy requirements of this instruction must be processed using the procedures contained in AFI 33-360V1, *Publications Management Program*. Waiver requests will be staffed through the center OPR for signature by the Center MA. Waiver requests or proposed changes will be sent to HQ AFMC/LGD for action. Requests for waivers will also contain justification as to why the unit cannot comply with existing guidance. Deviations including “test” or “trial” programs are not authorized without prior HQ AFMC/LG written approval.

### 1.3. Impoundment Terms:

1.3.1. **Authorized Personnel.** Individuals directly involved in the management, safing, troubleshooting, or repair of an impounded aircraft or equipment.

1.3.2. **Impoundment.** Impoundment is the immediate isolation or control of access to an weapon system or end item and applicable historical records after system or component malfunction of a serious or chronic nature so that an intensified investigation can be completed. Investigative efforts and repair actions are hampered or pertinent evidence destroyed by allowing unrestricted access to the weapon system or end item involved.

1.3.3. **Impoundment Authority.** Individual authorized to impound aircraft or weapon system. MA Division Chiefs/Deputies will designate in writing those personnel or duty positions that have the authority to impound weapon systems/end items.

1.3.4. **Impoundment Release Authority.** Individual authorized to release weapon system or end item from impoundment. The MA Division Chiefs/Deputies has the authority to release weapon system or end item from impoundment. This authority will not be delegated.

1.3.5. **Impoundment Official.** The impoundment official will be appointed by the Impoundment Authority. The impoundment official shall not be lower than a first line supervisor. Impoundment officials are designated as the single point of contact for the affected aircraft or equipment item and are responsible for controlling, monitoring, and investigating the impounded weapon systems/end items.

1.3.6. Isolation Area. An area designated by the Impoundment Authority to locate impounded weapon systems/end items if required. Aircraft may be isolated on the flight line or in hangars. The isolation area will be marked off using cones, ropes, or placards indicating the impoundment condition.

## Chapter 2

### IMPOUNDMENT

**2.1. Reasons for Impoundment of Equipment or Aircraft.** Aircraft and equipment may be impounded for many reasons. Personnel should evaluate the problem and recommend impounding the aircraft or equipment to the Impoundment Authority. Impound aircraft or equipment when:

2.1.1. Following an aircraft ground or flight related mishap as defined in AFI 91-204, *Safety Investigations and Reports*.

2.1.1.1. Safety investigations have inherent priorities over other activities and investigations connected to a mishap, including the right to impound Air Force property involved in the mishap. Subsequently, the Impoundment Authority and the Impoundment Release Authority for aircraft and equipment for mishap investigation purposes will be the Base/Center SE, Single Investigating Officer (SIO) or Safety Investigation Board (SIB) President.

2.1.2. Following an uncommanded flight control malfunction IAW AFI 91-204. Special attention is required to completely diagnose and correct flight control malfunctions.

2.1.3. When an inadvertent release or an explosive mishap is reported.

2.1.4. For engine anomalies to include but not limited to:

2.1.4.1. Unselected propeller reversal (does not include prop rotating backwards after intentional shutdown)

2.1.4.2. Flameout/stagnation or any engine malfunction that requires unintentional engine shut-down that cannot be restarted (for single engine aircraft).

2.1.4.3. An aircraft experiences an unselected power reversal.

2.1.4.4. Engine case penetration, rupture, or burn-through from an internal engine component.

2.1.4.5. When an aircraft experiences a loss of thrust sufficient to prevent maintaining level flight at a safe altitude. This includes all cases of multiple engine power loss or roll back.

2.1.5. When an in-flight fire occurs.

2.1.6. When an aircraft experiences an in-flight loss of all pitot-static system instruments or all gyro stabilized attitude or direction indicators.

2.1.7. When there is evidence of intentional damage, tampering, or sabotage.

2.1.8. When there are physiological incidents involving aircraft systems or cargo.

2.1.9. When a tool is lost on an aircraft and not found IAW AFMCI 21-107, *Tool Control and Accountability Program*.

2.1.10. When an engine or aircraft sustain Foreign Object Damage IAW AFMCI 21-122, *Foreign Object Damage (FOD) and Dropped Object (DO) Awareness and Prevention Program*

2.1.11. When the impoundment authority determines extraordinary measures are required to ensure the safe operating condition of a specific weapon system/end item or to address any degradation of aircraft airworthiness, serious anomaly, or after the 2nd repeat/recur of a safety-of-flight maintenance discrepancy.

## 2.2. Impoundment Process and Procedures.

- 2.2.1. When the impoundment authority directs impoundment, a red X symbol will be placed in the applicable AFTO Form 781A or AFTO Form 244 with a statement indicating the reason for impoundment and the name of the assigned impoundment official.
- 2.2.2. Units will develop impoundment checklist(s).
- 2.2.3. The impoundment official will use established checklists to guide sequence of actions.
- 2.2.4. Control access to impounded weapon system/end item. Establish an Entry Control Point (ECP) if required.
- 2.2.5. If an ECP is established, the impoundment official will ensure an access control log (manual or electronic media product) is maintained at the ECP of the impounded aircraft/equipment or storage facility to track personnel entering and leaving the area for the duration of the impoundment.
  - 2.2.5.1. The log will contain the following information as a minimum: individual's name, rank and employee number, date arrived/departed, and reason for entry.
  - 2.2.5.2. The log will be reviewed daily and initialed by the Impoundment Official.
  - 2.2.5.3. The log will be maintained on a daily basis until the impoundment/release authority releases the aircraft and will be disposed of only after the aircraft is successfully repaired.
- 2.2.6. Weapon system/end item records will be controlled at the discretion of the Impoundment Official. When required, the impoundment official will:
  - 2.2.6.1. Obtain and secure the current aircraft forms and work control documents for aircraft or the AFTO Forms 244, **Industrial/Support Equipment Record**, for equipment.
  - 2.2.6.2. Notify the MIS data base manager (PDMSS, MAXIMO, etc.) to isolate the aircraft/equipment serial number in order to prevent any changes and maintain the integrity of the historical data until the aircraft/equipment is released.
  - 2.2.6.3. Request any personnel records required to complete the impoundment investigation from applicable organizations. These records may include, but are not limited to, individual training records.
- 2.2.7. Maintenance will be limited on impounded aircraft/equipment until the cause is determined. The Impoundment Official will determine what maintenance can be performed in conjunction with the maintenance required to release the aircraft/equipment from impoundment. Limit maintenance actions to those required to make the aircraft safe.
- 2.2.8. Parts removed from impounded aircraft/equipment will be carefully controlled. This is to insure that parts, once confirmed as the cause for impoundment, are available to be processed as deficiency report exhibits.
- 2.2.9. The Impoundment Official selects a team of highly qualified technicians dedicated to determine the cause of the problem that led to the impoundment. Impoundment team members will be relieved of all other duties until released by the impoundment official.
- 2.2.10. Clear the impoundment discrepancy using "Red X" clearing procedures IAW TO 00-20-1, *Aerospace Equipment Maintenance General Policies and Procedures*.

2.2.11. Once the cause of the malfunction or failure has been positively determined, the Impoundment Official briefs the Release Authority on findings, corrective actions, and requests release of the aircraft or equipment from impoundment.

2.2.12. If approved, the Release Authority will clear or direct the impoundment be cleared in the forms by entering "Investigation Complete, All corrective actions have been reviewed, aircraft released" referring to original discrepancy in the "corrective action" block, signing the "inspected by" block and initialing over the red X symbol. Ensure the next aircrew to fly the aircraft is aware of the impoundment discrepancy and corrective actions prior to next flight.

2.2.13. If the cause of a reported malfunction cannot be determined or a positive corrective action cannot be confirmed, the Release Authority will determine if further actions are required.

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